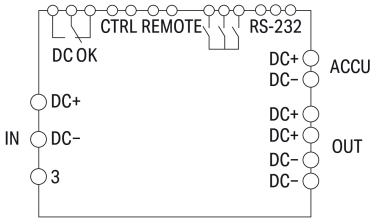
Data Sheet | Item Number: 787-875

UPS charger and controller; 24 VDC input voltage; 24 VDC output voltage; 20 A output current; LineMonitor; communication capability

https://www.wago.com/787-875





Features:

- Charger and controller for uninterruptible power supply (UPS)
- Current and voltage monitoring, as well as parameter setting via LCD and RS-232 interface
- Active signal outputs for function monitoring
- Remote input for buffered output deactivation
- Input for temperature control of connected battery
- Battery control (from manufacturing no. 215563) detects both battery life and battery type

Technical data

Input

Nominal input voltage $U_{i\,nom}$	24 VDC
Input voltage range	22 … 29 VDC
Nominal mains frequency range	0 Hz
Input current I_i	≤ 0.1 A (no load); ≤ 1.5 A (charging); ≤ 21.5 A
Inrush current	≤ 4 A (no load)

Output

Nominal output voltage $U_{o\,nom}$	24 VDC
Output voltage range	U_i - 1 VDC (rated operation); 20 … 25.5 VDC (buffer mode)
Nominal output current $I_{o\,nom}$	20 A
Current limitation	1.1 … 1.3 x $I_{o\,nom}$ (typ.)

Energy storage systems

Buffer time	10 s … 10 min or constant; adjustable
Switch-on threshold	DC 20 … 25.5 V (adjustable)
Memory type	Lead-acid fleece
Charging current	≤ 1 A
End-of-charge voltage	26 … 29.5 VDC (temperature-controlled; optional fixed setting)
Recommended battery module	787-871, 787-872, 787-873

Signaling and Communication

Signaling	1 x DC OK LED (green) 1 x Warning LED (yellow) 1 x Error LED (red) LCD 3 x Signal output (24 VDC; max. 25 mA) 1 x Isolated relay contact (max. 30 VDC; 1 A) 1 x RS-232 interface Battery control (C+; C-)
Operation status indicator	Green LED (U_o) Yellow LED (warning) Red LED (error)
Communications	RS-232 serial interface
Remote input	Switching buffer mode off

Continued on next page

Efficiency/Power Losses

Power loss P_l	≤ 15 W; ≤ 30 W (nominal load)
Efficiency (typ.)	95 %

Circuit Protection

Internal fuse	T 25 A

Safety and protection

Isolation voltage (connectors – housing)	0.5 kVDC
Protection class	III
Protection type	IP20; per EN 60529
Reverse voltage protection	Yes
Resistance to reverse feed	≤ 35 VDC
Pollution degree	2
Parallel operation	Yes, max. 3 battery modules for buffer time extension (temperature measurement evaluation is only possible via one battery module)
Series operation	No
MTBF	> 500,000 h (per IEC 61709)

Connection Data

Cable length (max.)	3 m (input, output, battery control)

Connection 1

Connection type	Input/output
Connection technology	Push-in CAGE CLAMP®
WAGO connector	WAGO 831 Series
Solid conductor	0.5 … 10 mm² / 20 … 8 AWG
Fine-stranded conductor	0.5 … 10 mm² / 20 … 8 AWG
Strip length	13 … 15 mm / 0.51 … 0.59 inches

Connection 2

Connection type	Signaling
Connection technology	CAGE CLAMP®
WAGO connector	WAGO 733 Series
Solid conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Fine-stranded conductor	0.08 … 0.5 mm² / 28 … 20 AWG
Strip length	5 … 6 mm / 0.2 … 0.24 inches

Physical data

Width	57 mm / 2.244 inches
Height	171 mm / 6.732 inches
Depth from upper-edge of DIN-rail	163 mm / 6.417 inches
Note (dimensions)	Height with connector

Mechanical data

Mounting type	DIN-35 rail

Continued on next page

Material data

Fire load	0.442 MJ
Weight	1200 g

Environmental requirements

Ambient temperature (operation)	-10 … +60 °C
Ambient temperature (storage)	-25 … +85 °C
Relative humidity	5 … 96 % (no condensation permissible)

Standards and Specifications

Conformity marking	CE
Standards/specifications	EN 60950 UL 60950 UL 508 EN 61000-6-2 EN 61000-6-3

Commercial data

Product Group	6 (INTERFACE ELECTRONIC)
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4045454993917
Customs tariff number	85044060900

Product Classification

UNSPSC	39121006
eCl@ss 10.0	27-04-06-90
eCl@ss 9.0	27-04-06-90
ETIM 9.0	EC000382
ETIM 10.0	EC000382
ECCN	NO US CLASSIFICATION

Environmental Product Compliance

RoHS Compliance Status	Compliant,No Exemption

Approvals / Certificates

General approvals

Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03081
UL Underwriters Laboratories Inc.	UL 508	E255817
UR Underwriters Laboratories Inc.	UL 60950-1	E255815

Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Continued on next page

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 787-875		

Documentation

Quick-Start Guide

Quickstart for Software 759-870	V 1.0.0	pdf 3043.43 KB

Bid Text

787-875	12.07.2019	xml 7.78 KB
787-875	12.07.2019	docx 23.20 KB
ausschreiben.de 787-875		

Instruction Leaflet

Uninterruptible power supply	27.04.2020	pdf 1264.21 KB

CAD/CAE-Data

CAD data

2D/3D Models 787-875

CAE data

EPLAN Data Portal 787-875
WSCAD Universe 787-875
ZUKEN Portal 787-875

Engineering-Software

Configuration and Commissioning Software

WAGO UPS Shutdown Tool	4.13 18.11.2021	exe 48463.53 KB
WAGO Software 759-870	4.13 10.05.2021	zip 38762.69 KB

Continued on next page

Libraries

Library			
Anbindung Stromversorgungen Serie 787	1.3.0 14.05.2014	zip 549.48 KB	

1 Compatible Products

1.1 Optional Accessories

1.1.1 Cables and connectors

1.1.1.1 Communication cable



Item No.: 787-890
RS-232 communication cable; Length 1.8 m

1.1.1.2 Connecting cable



Item No.: 761-9005
USB adapter; with 1m connection cable

1.1.2 Marking

1.1.2.1 Marker



Item No.: 2009-145
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white



Item No.: 248-501
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white

Item No.: 793-5501
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; white

Item No.: 793-501
WMB marking card; as card; not stretchable; plain; snap-on type; white



Item No.: 2009-115
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

1.1.2.2 Marking strip



Item No.: 2009-110
Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white

Continued on next page

1.1.3 Mounting adapter

1.1.3.1 DIN-rail adapter



Item No.: 787-897
Carrier rail adapter made of zinc die-cast; for mounting 787-8xx devices to a DIN 35 rail; gray



Item No.: 787-896
Carrier rail adapter; for mounting 787-8xx devices to a DIN 35 rail; gray

1.1.3.2 Wall-mount adapter



Item No.: 787-895
Mounting carrier; for screw fixing of 787-8xx devices on mounting plate or wall without DIN 35 rail; gray

1.1.4 Power supply

1.1.4.1 Uninterruptible power supply



Item No.: 787-871
Lead-acid AGM battery module; 24 VDC input voltage; 20 A output current; 3.2 Ah capacity; with battery control



Item No.: 787-873
Lead-acid AGM battery module; 24 VDC input voltage; 40 A output current; 12 Ah capacity; with battery control



Item No.: 787-872
Lead-acid AGM battery module; 24 VDC input voltage; 40 A output current; 7 Ah capacity; with battery control

1.1.5 Tool

1.1.5.1 Operating tool



Item No.: 210-719
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft



Item No.: 210-721
Operating tool; Blade: 5.5 x 0.8 mm; with a partially insulated shaft; multicoloured